

CLAIMS

1. A radio communication system having communication channels between a secondary station and a plurality of primary stations, the system further comprising site selection means for selecting one or more of the plurality of primary stations for transmission of data to the secondary station, wherein the site selection means is responsive to a plurality of metrics for determining the or each selected primary station for further data transmissions.

10 2. A system as claimed in claim 1, characterised in that means are provided for determining at least one of the metrics dynamically.

15 3. A system as claimed in claim 1, characterised in that the site selection means is responsive to at least one of the following metrics: path loss between a primary station and the secondary station; available power for data transmissions at a primary station; available channelisation codes at a primary station; interference levels at the secondary station; traffic loading; channel quality; and secondary station power requirements.

20 4. A primary station for use in a radio communication system having communication channels between a secondary station and a plurality of primary stations, the system further comprising site selection means for selecting one or more of the plurality of primary stations for transmission of data to the secondary station, wherein the site selection means is responsive to a plurality of metrics for determining the or each selected primary station for further data transmissions and wherein the primary station includes at least part of the site selection means.

30 5. A primary station as claimed in claim 4, characterised in that the site selection means comprises signalling means for signalling information relating to the value of at least one metric to the secondary station.

6. A primary station as claimed in claim 5, characterised in that means are provided for pre-processing data relating to at least one metric before the information is signalled to the secondary station.

5 7. A primary station as claimed in claim 5, characterised in that means are provided for transmitting the value of at least some of the metrics to be signalled by the signalling means via a general-purpose broadcast channel.

10 8. A primary station as claimed in claim 5, characterised in that the system further comprises a metric broadcast channel and in that means are provided for signalling the value of at least some of the metrics to be signalled by the signalling means via the metric broadcast channel.

15 9. A primary station as claimed in claim 7, characterised in that a metric signalled via a broadcast channel relates to the availability of channelisation codes.

20 10. A primary station as claimed in claim 4, characterised in that the site selection means comprises means for receiving the value of at least one metric signalled by the secondary station.

25 11. A secondary station for use in a radio communication system having communication channels between the secondary station and a plurality of primary stations, the system further comprising site selection means for selecting one or more of the plurality of primary stations for transmission of data to the secondary station, wherein the site selection means is responsive to a plurality of metrics for determining the or each selected primary station for further data transmissions and wherein the secondary station includes at least part of the site selection means.

12. A secondary station as claimed in claim 11, characterised in that the site selection means comprises means for receiving the value of at least one metric signalled by a primary station.

5 13. A secondary station as claimed in claim 11, characterised in that the site selection means comprises means for determining the value of at least one metric and for signalling information relating to that metric to a primary station.

10 14. A secondary station as claimed in claim 13, characterised in that means are provided for pre-processing data relating to at least one metric before the information is signalled to the primary station.

15 15. A method of operating a radio communication system having communication channels between a secondary station and a plurality of primary stations, the method comprising selecting one or more of the primary stations to transmit data to the secondary station, wherein the selection of primary stations is based on a plurality of metrics.